

► The Executive Interview

*Frank Laukien, President and CEO, Bruker BioSciences Corp.:
“Analytical sciences have always been a part of my life.”*

Bruker was co-founded by my father, a physics professor, and colleagues in Karlsruhe, Germany, in 1960, without venture capital or public funding. Even though the company has evolved and diversified over the years, we have tried to stay close to the business foundation set by those quintessential entrepreneurs. During college, I would spend my summer breaks working at Bruker, thus becoming involved in analytical instrumentation early on. While I was born and raised in Germany, I had always wanted to live in the United States for a while, so I wound up going to college at MIT. That provided me the opportunity to study physics, but I also took classes in economics and accounting to learn the financial and business side of the analytical “science business”.

Interestingly, my passion for instrumentation was actually sparked by my senior undergraduate thesis on the potential benefits of cryogenic nuclear magnetic resonance (NMR) probes. My interest in this area lay dormant for a few years until high-temperature superconductor (HTS) technology became available. In 1992, I started a research and development project focused on NMR cryoprobes at Bruker, a program that has helped to revolutionize NMR technology and greatly increased its sensitivity for structural biology. It took about five years to bring the first commercial NMR cryoprobe product to market, but it was one of those leading-edge technology gambles

that we take from time to time at Bruker. I had no idea in 1984 when I handed in my senior thesis that this technology would eventually have such a profound impact on the NMR field. Sometimes, when you work



Frank Laukien

really hard on a project for a long time you can actually get lucky in science.

Then, while working on my doctorate at Harvard in chemical physics, I discovered that not all of the equations in the area of Fourier transfer mass spectrometry (FTMS) were necessarily cut and dried. I had stumbled upon an opportunity to decipher some of these theoretical assumptions while also doing experimentation and developing analytical instruments. This was my introduction to mass spectrometry, and it gave me particular insight into the

FTMS field. Later on, I was able to utilize my understanding of mass spectrometry to lead Bruker Daltonics’ developments of MALDI-TOF and TOF/TOF systems, as well as of ESI-Q-q-TOF systems, and most recently, the hybrid Q-q-FTMS systems, which evolved out of my graduate work in ways that I could have never predicted.

After completing my Ph.D. at Harvard, I knew it was unlikely that I would be a science professor because I was equally focused on the science as well as on the fascinating business side of the industry. As a scientist, I really enjoy the product development emphasis on market-driven solutions for customers, where we try to find solutions to fit their needs in a real-time one-on-one marketing approach. I learned that aspect of the business by working in marketing, sales, and finance as my first real job after graduating.

I hope Bruker will continue to be characterized as a visionary and innovative company on the cutting edge of technology, not only for our instrumentation but also in terms of innovative business approaches, such as strategic alliances, etc.

Bruker BioSciences is located in Massachusetts, and I have enjoyed living here. I thought I would just stay in the U.S. for a while, but that has turned into 23 years. Exercise, which helps me to keep a lot of things in perspective, and spending time with my children are the best antidotes for a challenging job. I enjoy activities like soccer with my 12-year-old son and horseback riding with my 11-year-old daughter. We also like to watch the seasons change, and actually enjoy a real winter, especially this last one.

Industry items

ACLARA BioSciences (www.aclara.com) has entered into an access agreement with **GlaxoSmithKline** (GSK, www.gsk.com), under which GSK will gain access to ACLARA’s proprietary eTag Assay System.... The **European Patent Office** (www.european-patent-office.org) has licensed the SRS software from **LION bioscience** (www.lionbioscience.com) to assist in the review of patent applications in the life sciences.... **United**

Devices (www.grid.com) has partnered with life sciences software company **Optive Research** (www.optive.com).... The **FDA** (www.fda.gov) has approved **Biogen’s** (www.biogen.com) \$173 million manufacturing plant in North Carolina’s Research Triangle Park for commercial production of the psoriasis drug Amevive.... **MediBic** (www.medibic.com) and **SurroMed** (www.surromed.com) will collaborate on the development of high-value biomarker discovery product offerings.

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